

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1-41 (Canceled)

Claim 42 (Currently Amended) A pump for delivering precisely determined, small liquid flows under high pressure, the pump comprising:

at least one pump device including a displacement chamber, at least one working medium access bore formed in the displacement chamber and a piston that is movable in the displacement chamber;

a detachable connecting assembly positioned at the working medium access bore, the connecting assembly including a first pair of sealing surfaces having a first sealing surface and a second sealing surface, the first sealing surface being dome-shaped and convex along an entire length of the first sealing surface and the second sealing surface being concave conical and non-complementary to the first sealing surface along an entire length of each of the first and second sealing surfaces, at least one of the first and second sealing surfaces having a concentrically stepped surface forming a plurality of annular contact lines with the other sealing surface without forming a contact along an entire area of either one of the sealing surfaces, and the sealing surfaces having respective central openings defining a channel connected to the working medium access bore.

Claim 43. (Previously Presented) The pump according to claim 42, wherein a seal is interposed between the first and second sealing surfaces of the first pair of sealing surfaces.

Claim 44. (Previously Presented) The pump according to claim 42, wherein the connecting assembly comprises a second pair of sealing surfaces having a first sealing surface and a second sealing surface, and the connecting assembly further comprises a sealing body disposed between

the first and second pairs of sealing surfaces, one of the first and second sealing surfaces of each pair of the sealing surfaces being an inner sealing surface, the respective inner sealing surfaces of the two pairs of sealing surfaces being formed on the sealing body, the sealing body further comprising a dimensionally stable, highly pressure-resistant synthetic material.

Claim 45. (Currently Amended) The pump according to claim [[42]] 44, wherein the connecting assembly comprises a third pair of sealing surfaces having a first sealing surface and a second sealing surface, one of the first and second sealing surfaces of each pair of sealing surfaces being an inner sealing surface and another of the first and second sealing surfaces of each pair of sealing surfaces being an external sealing surface, and the connecting assembly further comprising a connecting body disposed between the external sealing surfaces of the first and third pairs of the sealing surfaces, so that the first and third pairs of sealing surfaces each form a tight junction with the connecting body.

Claim 46. (Previously Presented) The pump according to claim 42, wherein the connecting assembly comprises a first connecting body having a first contact surface, the connecting assembly further comprising a second connecting body having a second contact surface contacting the first contact surface, the second connecting body having one of the first and second sealing surfaces of the first pair of sealing surfaces formed thereon such that the second connecting body is disposed between the second contact surface and the sealing surface formed on the second connecting body; the connecting assembly further comprising a duct for the working medium, the duct being fixedly connected to the second connecting body and communicating with the channel having the central opening located at the sealing surface of the second connecting body.

Claim 47. (Previously Presented) The pump according to claim 46, wherein the contact surfaces are cambered and complementary to each other to center the contact surfaces with respect to each other.

Claim 48. (Canceled)

Claim 49. (Previously Presented) A pump assembly comprising at least a first pump according to claim 46 and a second pump according to claim 46, the second pump being positioned downstream of the first pump and the second pump being operable as a storage device of pulsation of the first pump.

Claim 50. (Currently Amended) A pump for delivering precisely determined, small liquid flows under high pressure, the pump comprising:

at least one pump device including a displacement chamber, at least one working medium access bore formed in the displacement chamber and a piston that is movable in the displacement chamber;

a detachable connecting assembly positioned at the working medium access bore, the connecting assembly including a pair of sealing surfaces having a first sealing surface and a second sealing surface, the first sealing surface being dome-shaped and convex along an entire length of the first sealing surface and the second sealing surface being concave conical and non-complementary to the first sealing surface along an entire length of each of the first and second sealing surfaces,

an entire area of the first sealing surface being positioned adjacently to an entire area of the second sealing surface such that the first and second sealing surfaces contact each other along at least one annular contact line without forming a contact along the entire area of either one of the sealing surfaces, and the first and second sealing surfaces having respective central openings defining a channel connected to the working medium access bore.